

## What Can You Do?

- ✓ Read and comply with the Laboratory's Policy Statement.
- ✓ Complete required institutional training (i.e. GET, Waste Generator Training).
- ✓ Lower fume hood sashes when not using.
- ✓ Conserve resources.
- ✓ Purchase products with the Energy Star label.
- ✓ Purchase products containing recycled materials.
- ✓ Turn off your lights when you leave the room.
- ✓ Enable the energy



savings

features to automatically power down your computer and monitor when you are gone.

- ✓ Purchase equipment with low standby power.
- ✓ Use smallest amount and less toxic chemicals.

## Web Resources

EPA's Energy Savings  
<http://energystar.gov>



Iowa State University Energy Savings  
<http://www.fpm.iastate.edu/utilities/energyefficiency/>

DOE Energy Efficiency and Renewable Energy  
<http://www.eere.energy.gov/femp/procurement/>

List of Devices with Low Standby Power  
<http://oahu.lbl.gov>

## Key Elements of Ames Laboratory's Environmental Management System

### Policy

- Ames Laboratory Integrated Safety Management System Policy (10200.010)

### Planning

- Identifying Laboratory activities that have an environmental impact.
- Identifying legal and other requirements.
- Setting environmental objectives and targets.

### Implementation

- Defining roles and responsibilities.
- Listing and ranking the Laboratory's environmental aspects and impacts.
- Take all appropriate training.
- Establishing appropriate procedures for controlling activities and emergencies that impact or could potentially impact the environment.
- EMS integration into the Lab's Integrated Safety Management System.

### Checking/Corrective Action

- Monitoring environmental performance and objective and targets.
- Identifying and correcting problems to prevent recurrence.
- Maintaining records.

### Management Review

- Reviews the overall EMS performance.
- Reviews environmental objectives and targets recommended by the EMS Steering Group for incorporation into Laboratory activities.

### Questions or Comments?

Please contact the Environment, Safety, Health & Assurance Office (ESH&A)  
G40 TASF  
294-2153 or [eshadesk@ameslab.gov](mailto:eshadesk@ameslab.gov)

# Environmental Management System



## What do I need to know?

- How my work can affect the environment.
- The environmental requirements associated with my work.

## What are my responsibilities?

- To incorporate pollution prevention, waste minimization and energy savings into my work.
- To stop work in case of an imminent danger (including possible environmental impairment).
- To comply with environmental requirements.



AMES LABORATORY

## Ames Laboratory Integrated Safety Management System Policy Statement

Ames Laboratory has a strong commitment to the safety and health of each Laboratory employee. The Laboratory is equally committed to preventing accidental loss of resources and assets and protecting the general public and the environment, through pollution prevention, property loss or damage to the environment. Therefore, it is our goal to eliminate foreseeable hazards and maintain a safe and healthful workplace through continual improvement. In addition, complying with applicable Laboratory Contract requirements, Department of Energy Orders and regulatory standards is a prerequisite for doing Laboratory business and the responsibility of each employee.

In order to accomplish these goals, the Laboratory has incorporated the principles of Integrated Safety Management (ISM) and the practices of an Environmental Management System (EMS) into an Integrated Safety Management System (ISMS). Our Integrated Safety Management System provides mechanisms to ensure that we incorporate safety and environmental management into all aspects of our work, from planning to completion.

Each employee must participate through compliance with the Laboratory's ES&H requirements. Each level of line management has the responsibility to consider the impacts of their activities on the environment and the workplace, and to support the performance and the continuous improvement of effective safety and environmental practices, such as pollution prevention. This "team" effort is necessary to achieve a safe and productive research laboratory.

Dr. Alexander H. King, Director  
Ames Laboratory

## Ames Laboratory Environmental Management System

### What is the Laboratory's Environmental Management System (EMS)?

The EMS is a way to formally document the Laboratory's environmental plans, policies, procedures, environmental aspects, impacts and goals. EMS is much like the "plan-do-check-act" cycle; the EMS is a continual cycle of planning, implementing, reviewing and improving the processes and actions the Laboratory undertakes to meet its environmental goals.

### Why EMS?

It is a requirement for all federal facilities (Executive Order 13423).



### EMS Principles

Ames Laboratory chose the ISO 14001:1996 Standard as its model for its EMS because it is the most widely used and accepted standard.

### EMS Goals

The EMS allows the Laboratory to set and monitor its own environmental goals (i.e. reduce waste, save energy and prevention of pollution).

### EMS Steering Group

This group consists of Ames Laboratory employees. The group is tasked with listing, ranking and recommending environmental objectives and targets to upper management.



### Environmental Aspects & Impacts

- Aspects are activities, products or services that can interact with the environment (i.e. research activities).
- Impacts are the results of Laboratory activities on the environment (i.e. depletion of natural resource, air pollution, etc.)

## Pollution Prevention

- ★ **Reduce** the volume or toxicity of waste generated. This can be accomplished by reducing inputs and using less toxic substances (i.e. ethanol instead of benzene).
- ★ **Reuse** materials in other ways (i.e. chemical containers for waste containers).
- ★ **Recycle** materials that you are unable to use (i.e. batteries, toner cartridges, white paper, Styrofoam peanuts and scrap metal). Also, purchasing products containing recycled materials closes the loop.



### Web Resources

Ames Lab Waste Minimization & Pollution Prevention Plan

[http://www.external.ameslab.gov/esh/ESH&A\\_documents/planlist.html](http://www.external.ameslab.gov/esh/ESH&A_documents/planlist.html)

Iowa State University Recycling Site

<http://www.fpm.iastate.edu/recycling/>

EPA's Recycled Product Web Site

<http://www.epa.gov/cpg/products.htm>



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